Complete Summary

GUIDELINE TITLE

Guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings 2007. Surveillance.

BIBLIOGRAPHIC SOURCE(S)

Siegel JD, Rhinehart E, Jackson M, Chiarello L, Healthcare Infection Control Practices Advisory Committee. 2007 guideline for isolation precautions: preventing transmission of infectious agents in healthcare settings. Surveillance. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2007 Jun. 1 p.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention (CDC), Hospital Infection Control Practices Advisory Committee. Guidelines for isolation precautions in hospital infection control advisory committee. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1996 Jan 1. 38 p. (CDC prevention guidelines; no. 1/96). [97 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Healthcare-associated infections

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Infectious Diseases
Nursing
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Hospitals
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide infection control recommendations for all components of the healthcare delivery system, including hospitals, long-term care facilities, ambulatory care, home care and hospice
- To reaffirm Standard Precautions as the foundation for preventing transmission during patient care in all healthcare settings
- To reaffirm the importance of implementing Transmission-Based Precautions based on the clinical presentation or syndrome and likely pathogens until the infectious etiology has been determined
- To provide epidemiologically sound and, whenever possible, evidence-based recommendations

TARGET POPULATION

Patients and healthcare personnel in all settings where healthcare is delivered

INTERVENTIONS AND PRACTICES CONSIDERED

1. Monitoring of epidemiologically-important organisms and healthcare-associated infections
2. Application of epidemiologic principles
3. Development and implementation of strategies to reduce risks for transmission and evaluate effectiveness
4. Consultation from knowledgeable persons to obtain additional measures of infection control
5. Periodic review of community or regional trends in incidence and prevalence of epidemiologically important organisms

MAJOR OUTCOMES CONSIDERED

- Rates of transmissions and acquisition of healthcare-associated infection
- Detection of transmission trends

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Med-line and Pub Med were used to search for relevant studies published in English, focusing on those published since 1996.

The quality of studies, consistency of results and correlation with results from randomized, controlled trials when available were considered during the literature review and assignment of evidence-based categories to the recommendations in this guideline.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation, as mandated by federal and/or state regulation or standard.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the strength of recommendation grading (IA-IC, II, and no recommendation) are provided at the end of the "Major Recommendations" field.

Surveillance

III.A. Monitor the incidence of epidemiologically-important organisms and targeted healthcare-associated infections (HAIs) that have substantial impact on outcome and for which effective preventive interventions are available; use information collected through surveillance of high-risk populations, procedures, devices, and highly transmissible infectious agents to detect transmission of infectious agents in the healthcare facility (Haley et al., 1985; Pottinger, Herwaldt, & Perl, 1997; Lee et al., 1998; Lemmen et al., 2001; Ostrowsky et al., 2001; O'Grady et al., 2002; Gaynes & Emori, 2001; Centers for Disease Control and Prevention [CDC], 2000; Haley, 1995; Curran, Benneyan, & Hood; 2002; Lanotte et al., 2003). **Category IA**

III.B. Apply the following epidemiologic principles of infection surveillance (Pottinger, Herwaldt, & Perl, 1997; Gaynes & Emori, 2001; Haley, 1995; Curran, Benneyan, & Hood, 2002; CDC, 2001). **Category IB**

- Use standardized definitions of infection.

- Use laboratory-based data (when available).
- Collect epidemiologically-important variables (e.g., patient locations and/or clinical service in hospitals and other large multi-unit facilities, population-specific risk factors [e.g., low birth-weight neonates], underlying conditions that predispose to serious adverse outcomes).
- Analyze data to identify trends that may indicated increased rates of transmission.
- Feedback information on trends in the incidence and prevalence of HAIs, probable risk factors, and prevention strategies and their impact to the appropriate healthcare providers, organization administrators, and as required by local and state health authorities.

III.C. Develop and implement strategies to reduce risks for transmission and evaluate effectiveness (Haley et al., 1985; Haley, 1995; Macartney et al., 2000; Lanotte et al., 2003; Weinstock et al., 2000; Coopersmith et al., 2004). **Category IB**

III.D. When transmission of epidemiologically-important organisms continues despite implementation and documented adherence to infection prevention and control strategies, obtain consultation from persons knowledgeable in infection control and healthcare epidemiology to review the situation and recommend additional measures for control (Haley et al., 1985; Drosten et al., 2003; Ostrowsky et al., 2001). **Category IB**

III.E. Review periodically information on community or regional trends in the incidence and prevalence of epidemiologically-important organisms (e.g., influenza, respiratory syncytial virus [RSV], pertussis, invasive group A streptococcal disease, Methicillin-resistant *Staphylococcus aureus* [MRSA], vancomycin-resistant enterococci [VRE]) (including in other healthcare facilities) that may impact transmission of organisms within the facility (Stevenson, 1999; Ostrowsky et al., 2001; O'Brien et al., 2002; Nicolle et al., 1999; Seybold et al., 2006). **Category II**

Definitions:

Strength of the Recommendations

The recommendations are categorized on the basis of existing scientific data, theoretical rational, applicability, and when possible, economic impact, as follows:

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Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

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No recommendation; unresolved issue. Practices for which insufficient evidence or consensus regarding efficacy exists.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of surveillance strategies to prevent the transmission of infectious agents in healthcare settings

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Much of the evidence cited for preventing transmission of infectious agents in healthcare settings is derived from studies that used "quasi-experimental designs", also referred to as nonrandomized, pre- post-intervention study designs. Although these types of studies can provide valuable information regarding the effectiveness of various interventions, several factors decrease the certainty of attributing improved outcome to a specific intervention. These include difficulties in controlling for important confounding variables; the use of multiple interventions during an outbreak; and results that are explained by the statistical principle of regression to the mean, (e.g., improvement over time without any intervention). Observational studies remain relevant and have been used to evaluate infection control interventions.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1996 Jan (revised 2007 Jun)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Healthcare Infection Control Practices Advisory Committee (HICPAC)

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from Centers for Disease Control and Prevention (CDC) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on April 25, 1999. The information was verified by the guideline developer on November 15, 1999. This NGC summary was updated by ECRI Institute on September 5, 2007.

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Date Modified: 10/20/2008


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